

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

In the Matter of

Petition for Arbitration of an
Interconnection Agreement Between
Charter Fiberlink MA-CCO, LLC, and
Verizon Massachusetts Inc.

D.T.E. Docket No. 06-56

**TESTIMONY OF
WILLETT RICHTER
ON BEHALF OF VERIZON NEW ENGLAND INC.,
d/b/a VERIZON MASSACHUSETTS**

August 2, 2006

Table of Contents

	<u>Page</u>
WITNESS BACKGROUND AND OVERVIEW.....	1
Charter's Issue 1: Conditioning Charter's Right to Request a Fiber Meet Arrangement on a Minimum Level of Traffic.	3
Charter's Issue 2: Allocation of Cost of Fiber Meet Arrangements.....	4
Charter's Issue 3: Distance Limitations on Proposed Fiber Meet Arrangements; and Limitations of Fiber Strands Deployed by Verizon MA.	7
Charter's Issue 4: Limitations on the Type of Traffic to be Exchanged Over a Fiber Meet Arrangement.	10
Charter's Issue 5(a): Use of SONET Terminal or Add/Drop Multiplexer.	11
Charter's Issue 5(b): Use of Multiple Terminals in a Ring Configuration.....	12
Charter's Issue 5(c): Required Notice of Upgrade or Change to Fiber Meet Equipment.	13
Charter's Issue 5(d): Compensation for Construction and/or Implementation Expenses Generated by a Move or Change to the Fiber Meet Arrangement.....	15
Verizon MA's Issue 1: The Deployment of Fiber Meet Arrangements and Associated Trunking Within Fixed Time Intervals Should Be Subject to Reasonable Conditions, Such as Charter's Completion of Certain Milestones During the Construction of the Fiber Meet Arrangement.....	16
Verizon MA's Issue 2: The Parties Should Be Able to Agree to Modify Fixed Time Intervals for Provisioning the Fiber Meet Arrangement and Associated Facilities and Trunks.....	18

WITNESS BACKGROUND AND OVERVIEW

Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.

A. My name is Willett Richter. My business address is 85 High Street, Floor 2, Pawtucket, Rhode Island 02860.

Q. WHAT IS YOUR CURRENT POSITION WITH VERIZON?

A. I am employed by Verizon as a Senior Specialist Engineering Regulatory Support. In this capacity, I serve as a liaison between (i) state and federal regulatory entities (both internal and external to Verizon), and (ii) the Engineering and Planning organization, under Verizon's Network Services Group.

Q. WHAT OTHER POSITIONS HAVE YOU HELD WITH VERIZON?

A. I have been employed by Verizon and its predecessor companies for 20 years in a variety of capacities, primarily engineering. My positions at Verizon have included Outside Plant Engineer and Network Planner. In 1993, I was assigned the position of Technical Transfer Manager in South East Asia (Bangkok), where I was responsible for part of the design and construction of a 2.6 million line expansion project in the Bangkok Metropolitan area. Since returning to the United States in 1995, I have worked as a Strategic Business Planner, Staff Director and Engineering Manager in Maine, Massachusetts and Rhode Island.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I received my Bachelor's degree in Computer Science from Clarkson University in 1986 and my Masters of Business Administration degree from Bryant University in 2000.

1 **Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.**

2 A. The purpose of my testimony is to address several of the issues raised by Charter
3 in connection with fiber meet arrangements. As I explain in further detail below,
4 fiber meet arrangements require a substantial investment and should be deployed
5 only where traffic volumes warrant that investment. If traffic volumes do not
6 justify that investment, Charter should provide financial assurances that traffic
7 volumes will grow to justify the investment in fiber meet facilities because
8 Charter is in control of traffic volumes over any fiber meet arrangement.

9 In constructing fiber meet arrangements, Verizon MA should not be
10 required to provide whatever length of fiber optic cable Charter specifies in order
11 to interconnect with Charter. Rather, there should be reasonable limits on the
12 location where Verizon MA interconnects its fiber optic cables with Charter and
13 the amount of new fiber optic cable that Verizon MA can be required to install.

14 In addition, any fixed intervals for deploying a fiber meet arrangement and
15 associated trunking should be subject to Charter completing its construction
16 milestones. There should also be reasonable limits on the number of facilities and
17 trunks subject to fixed intervals, and requests beyond those reasonable limits
18 should be subject to negotiated intervals. In addition, where either Charter or
19 Verizon MA is unable to meet a fixed interval, the parties should be able to agree
20 between themselves to modify that interval, rather than having to petition the
21 Department even in the case of such mutual agreement.

22 Furthermore, Verizon MA and Charter should agree upon the traffic types
23 to be exchanged over the fiber meet arrangements and the compensation due for
24 other uses of the fiber meet arrangements. These agreements are necessary so that

1 Verizon MA and Charter can set up fiber meet facilities with the appropriate
2 billing capabilities.

3 Finally, I address several technical proposals that Charter first introduced
4 in its supplement to its arbitration petition. None of these proposals has merit.

5 **Charter's Issue 1: Conditioning Charter's Right to Request a Fiber Meet**
6 **Arrangement on a Minimum Level of Traffic.**

7 **Q. PLEASE DESCRIBE A FIBER MEET ARRANGEMENT.**

8 A. A fiber meet arrangement is a method of interconnection that can be used to
9 exchange traffic between customers of Verizon MA and customers of a
10 competing carrier. Both carriers deploy their own SONET-capable fiber meet
11 equipment and interconnect that equipment with their fiber optic cables. Fiber
12 meet arrangements are capable of exchanging very large volumes of traffic and
13 should be used only where the carriers are exchanging enough traffic to justify the
14 very significant financial expenditures of such an arrangement – which I elaborate
15 upon later in this testimony.

16 **Q. HOW MUCH TRAFFIC CAN BE HANDLED BY THE SMALLEST FIBER**
17 **MEET ARRANGEMENT?**

18 A. The smallest fiber optic system that could be deployed in a fiber meet
19 arrangement is an OC3 SONET system. An OC3 fiber optic system has the
20 capacity to handle approximately three DS3's worth of traffic volume, *i.e.*,
21 approximately 16,800,000 minutes of use per month.

22 **Q. WHAT IS THE MINIMUM TRAFFIC VOLUME THAT WOULD**
23 **JUSTIFY THE USE OF AN OC-3 FIBER OPTIC SYSTEM?**

24 A. From a network engineering perspective, it is not efficient to use an OC3 fiber
25 optic system for less than one DS3's worth of traffic volume (*i.e.*, one-third of the

1 capacity of the OC3 system). In Verizon MA's own network planning, Verizon
2 MA does not even *consider* deploying an OC3 system until it has *at least one*
3 DS3's worth of traffic volume. To exchange traffic between Verizon MA and a
4 competing carrier, it would not be an efficient use of network resources to deploy
5 an OC3 system in a fiber meet arrangement where the traffic volumes are below a
6 DS3 level.

7 **Q. WOULD VERIZON MA BE WILLING TO DEPLOY A FIBER MEET**
8 **ARRANGEMENT WITH CHARTER IF TRAFFIC VOLUMES ARE LESS**
9 **THAN A DS3'S WORTH?**

10 A. Yes. In an effort to reach an accommodation with Charter, Verizon MA is willing
11 to deploy a fiber meet arrangement where Charter and Verizon MA are
12 exchanging almost a DS3's worth of traffic and traffic volumes are continuing to
13 grow. Specifically, Verizon MA would be willing to deploy a fiber meet
14 arrangement where Verizon MA and Charter are already exchanging at least 70
15 percent of a DS3's worth of traffic and those traffic volumes have grown at least 8
16 percent in the preceding three months. Under these circumstances, Verizon MA
17 expects that Charter and Verizon MA would be able to complete construction of a
18 fiber meet arrangement at or about the time the parties are exchanging a DS3's
19 worth of traffic.

20 **Charter's Issue 2: Allocation of Cost of Fiber Meet Arrangements.**

21 **Q. DOES VERIZON MA HAVE ANY CONTROL OVER THE VOLUMES OF**
22 **TRAFFIC EXCHANGED OVER A FIBER MEET ARRANGEMENT**
23 **WITH CHARTER?**

24 A. No. Verizon MA has no control of the traffic volumes to be exchanged over a
25 fiber meet arrangement. Only Charter can control those traffic volumes and
26 assure the efficient utilization of the OC3 system in that fiber meet arrangement.

1 **Q. WHAT ARE THE COSTS OF DEPLOYING A FIBER MEET**
2 **ARRANGEMENT?**

3 A. The cost of deploying a fiber meet arrangement can be substantial. Even the
4 smallest OC3 SONET system in a fiber meet arrangement typically costs between
5 \$60,000-\$90,000. In order to deploy an OC3 fiber optic system in a fiber meet
6 arrangement with Charter, Verizon MA must purchase an Add/Drop multiplexer
7 with OC3 card and an LGX fiber panel. The cost of that equipment, including the
8 engineering, installation and miscellaneous support equipment, is approximately
9 \$50,000. Verizon MA must then connect that equipment to spare fiber facilities
10 that extend to or near the agreed-upon fiber meet point(s). Verizon MA then
11 needs to purchase a fiber network interface device (“FNID”) and install it at one
12 of the meet points. If Verizon MA’s spare fiber already extends to the meet
13 point(s), Verizon MA will connect it to Verizon MA’s side of the FNID(s). If
14 Verizon MA’s spare fiber does not extend to the meet point(s), Verizon MA will
15 need to run additional fiber to connect its existing spare fiber facilities to the
16 FNID(s). The cost of the fiber optic cable, FNID and associated labor generally
17 would vary between \$10,000 and \$40,000 (assuming at most a 500 foot buildout
18 of new fiber optic cable, as set forth in Verizon MA’s draft fiber meet
19 amendment).

20 **Q. SHOULD VERIZON MA AND CHARTER BEAR THEIR OWN COSTS,**
21 **ON THEIR RESPECTIVE SIDES OF A FIBER MEET POINT, WHERE**
22 **TRAFFIC VOLUMES ARE SUFFICIENT TO JUSTIFY THE USE OF AN**
23 **OC3 SYSTEM?**

24 A. Yes. Where Verizon MA and Charter are already exchanging at least one DS3’s
25 worth of traffic, neither party would charge the other party for use of the fiber
26 meet arrangement to exchange reciprocal compensation traffic or IntraLATA toll

1 traffic between their respective customers. Each party would charge the other
2 party only reciprocal compensation, intercarrier compensation, or access charges,
3 as applicable, for transporting and terminating such traffic.

4 **Q. SHOULD VERIZON MA BEAR THESE COSTS, ON ITS OWN SIDE OF**
5 **A FIBER MET POINT, WHERE TRAFFIC VOLUMES ARE TOO SMALL**
6 **TO JUSTIFY THE USE OF AN OC3 FIBER OPTIC SYSTEM?**

7 A. No. These costs can be justified only when there are sufficient traffic volumes
8 exchanged between Verizon MA and Charter. If Verizon MA and Charter
9 deploy, at Charter's request, a fiber meet arrangement in anticipation of
10 exchanging at least a DS3's worth of traffic and such traffic volumes do not
11 materialize, Charter should provide some financial assurance to Verizon MA.
12 That is because Charter, not Verizon MA, controls traffic volumes, and Charter
13 requested the subject fiber meet arrangement. If Verizon MA and Charter were to
14 deploy an OC3 system for a fiber meet arrangement, Charter would be in
15 complete control of the traffic volumes exchanged over that arrangement. The
16 timing and success of Charter's marketing efforts would determine the traffic
17 volumes exchanged over the fiber meet arrangement. If Charter's marketing
18 efforts were delayed or not successful, there might be no traffic exchanged over
19 the fiber meet arrangement, or the traffic volumes might be only a fraction of a
20 DS3 level. From a network engineering perspective, an OC3 fiber optic system
21 would be an inefficient method of exchanging such a small volume of traffic. In
22 making its marketing decisions and investments, Charter should be required to
23 consider not only its own cost of building to a fiber meet point, but also the
24 system inefficiencies (in particular, Verizon MA's cost of building out to a fiber
25 meet point) that Charter would cause if it fails to generate enough traffic to justify

1 the fiber meet arrangement. That is accomplished by requiring Charter to
2 compensate Verizon MA if Charter insists on building a fiber meet arrangement
3 where there are insufficient traffic volumes to justify the expenditures.

4 Moreover, any fiber optic system in a fiber meet arrangement with Charter
5 would be dedicated to Charter's traffic. Verizon MA could not use those facilities
6 to serve another customer or carrier. If Charter did not rapidly and successfully
7 market its services, there would be little or no traffic carried over those facilities.
8 In this situation, traffic volumes would not produce sufficient revenues to warrant
9 the cost of the fiber meet facilities. Nor would those facilities be used to complete
10 calls from Verizon MA's customers to Charter's customers if Charter has no
11 customers. As such, the fiber meet arrangement would constitute stranded
12 investment for Verizon MA.

13 **Charter's Issue 3: Distance Limitations on Proposed Fiber Meet**
14 **Arrangements; and Limitations of Fiber Strands**
15 **Deployed by Verizon MA.**

16 **Q. PLEASE DESCRIBE HOW CHARTER AND VERIZON MA WOULD**
17 **INTERCONNECT THEIR FIBER OPTIC CABLE.**

18 A. In order to establish a fiber meet arrangement, both Charter and Verizon MA
19 would provide fiber optic cables from their SONET-capable equipment to the
20 fiber meet points (FNIDs). The FNIDs would be located on a pole so that Charter
21 and Verizon MA would have 24 hour, 7-day-a-week access to the FNIDs.

22 **Q. WHERE DOES VERIZON MA PROPOSE TO LOCATE THE FIBER**
23 **MEET POINTS?**

24 A. Verizon MA is willing to interconnect its fiber optic cable with Charter's fiber
25 optic cable at a reasonable distance of up to three miles from any of Verizon MA

1 wire centers. In addition, Verizon MA is willing to deploy a reasonable amount
2 of additional fiber optic cable (*i.e.*, up to 500 feet) to establish such a connection.

3 **Q. WILL VERIZON MA AND CHARTER BE ABLE TO LOCATE THEIR**
4 **FIBER MEET POINTS WITHIN THREE MILES OF VERIZON'S**
5 **NEAREST WIRE CENTER?**

6 A. Yes. Charter and Verizon MA can easily interconnect their fiber optic cables at a
7 point that is within three miles of Verizon MA's nearest wire center. Charter
8 needs to establish only two fiber meet arrangements in Massachusetts, one in each
9 of the two Massachusetts LATAs. In each of these LATAs, Charter is already
10 located within three miles of Verizon MA's nearest wire center.

11 In LATA 126, Charter's location (CHCPMAFD) is 354 Sheridan Street in
12 Chicopee. Verizon MA's nearest wire center (CHCPMARI) is located at 29
13 Riverview Terrace in Chicopee. The distance between these two locations,
14 measured on an airline mileage basis using their associated V&H coordinates, is
15 only 1.9 miles. Charter's location is therefore already within three miles of
16 Verizon MA's wire center.

17 In LATA 128, Charter's location (OXFRMAAK) is 199 Southbridge
18 Street in Oxford. Verizon MA's nearest wire center (AUBNMALG) is located at
19 Leicester & Garden Streets in Auburn. The distance between these two locations,
20 measured on an airline mileage basis using their associated V&H coordinates, is
21 only 2.6 miles. Again, Charter's location is already within three miles of Verizon
22 MA's wire center.

1 **Q. DOES VERIZON MA'S PROPOSAL PROVIDE A LARGE AREA**
2 **WITHIN WHICH TO ESTABLISH FIBER MEET POINTS?**

3 A. Yes. Verizon MA's proposed three mile limitation provides an ample area in
4 which Charter and Verizon MA can interconnect their fiber optic cables. The area
5 of a circle with a radius of three miles comprises an area of 28.2 square miles
6 (Area of a Circle = $\pi r^2 = 3.14 \times 3 \times 3$). This means that for each Verizon MA
7 wire center, there is an area of 28.2 square miles within which the Charter and
8 Verizon MA can interconnect their fiber optic cables. Verizon MA has 268 wire
9 centers in Massachusetts. If Verizon MA's wire centers are at least 6 miles apart,
10 there would be approximately 7,600 square miles that are located within Verizon
11 MA's proposed distance limitation. For purposes of comparison, the entire
12 Commonwealth of Massachusetts covers approximately 8,257 square miles.¹ Of
13 course, some of the wire center areas will overlap, but the point remains that
14 Verizon MA's proposed distance limitation allows Charter more than ample
15 opportunity to establish fiber meet points within reasonable distances from
16 Verizon MA's nearest wire centers.

17 **Q. WHY DOES VERIZON MA PROPOSE TO LIMIT THE**
18 **CONSTRUCTION OF NEW FIBER OPTIC CABLE TO 500 FEET?**

19 A. Verizon MA proposes that Charter and Verizon MA use existing spare fiber optic
20 cables and limit the amount of new fiber optic cables to be deployed by Verizon
21 MA to no more than 500 feet. The reason for this limitation is the expense and
22 time involved in deploying new fiber optic cables. Placing significant lengths of

¹ William Francis Galvin, Secretary of the Commonwealth, A Profile of
Massachusetts, <http://www.sec.state.ma.us/cis/cismaf/maprof.htm>.

1 new fiber cables can significantly increase the cost of a fiber meet arrangement
2 and the time necessary to implement it.

3 **Q. CAN VERIZON MA AND CHARTER AGREE TO FIBER MEET POINTS**
4 **OUTSIDE THESE LIMITATIONS?**

5 A. Yes. Verizon MA's proposed limitations are not absolute. Verizon MA expects
6 to work with Charter to find locations to connect their fiber optic cables within
7 these limitations. If Verizon MA and Charter are not able to find such a location
8 in extraordinary circumstances, the parties can agree to a location outside of the
9 limitations. And if the parties are not able to agree on whether given
10 circumstances are extraordinary, either party can invoke the agreement's dispute
11 resolution provisions.

12 **Charter's Issue 4: Limitations on the Type of Traffic to be Exchanged**
13 **Over a Fiber Meet Arrangement.**

14 **Q. SHOULD VERIZON MA AND CHARTER AGREE ON THE TYPES OF**
15 **TRAFFIC TO BE EXCHANGED OVER A FIBER MEET**
16 **ARRANGEMENT?**

17 A. Yes. In order to properly establish a fiber meet arrangement, Verizon MA needs
18 to know the traffic types to be carried over that arrangement. For example, where
19 Verizon MA and Charter are exchanging local and toll traffic between their
20 respective customers, the fiber meet arrangement needs to be set up for billing
21 reciprocal compensation, intercarrier compensation and access charges. In this
22 situation, the fiber meet facilities need to be interconnected to Verizon MA's
23 switch and the traffic on those facilities must be measured and rated.

24 On the other hand, where Charter uses a fiber meet arrangement to access
25 a service platform, such as 911, Verizon MA will not need to measure the traffic
26 volumes on those facilities. Rather, Verizon MA will need to set up these

1 facilities for monthly billing to Charter. There is no reason for Verizon MA to
2 bear the cost of fiber meet facilities used by Charter to access service platforms.
3 In these situations, Charter should bear the full cost of the fiber meet facilities it
4 uses to access these service platforms.

5 **Charter’s Issue 5(a): Use of SONET Terminal or Add/Drop Multiplexer.**

6 **Q. SHOULD THE TERM “Add/Drop Multiplexer” BE REPLACED WITH**
7 **“SONET Terminal”?**

8 A. No. Charter proposed in its arbitration petition that the term “Add/Drop
9 Multiplexer” be replaced with the term “SONET Terminal.” However, in its
10 supplement to its arbitration petition, Charter suggests that there isn’t really any
11 difference between the equipment described by these two terms: “the Parties
12 seem to contemplate the same functionality, but have different labels for the
13 equipment that provides that functionality.” *See* Charter Supplement to Its
14 Arbitration Petition at 3.

15 **Q. DOES VERIZON MA PLAN TO USE ADD/DROP MULTIPLEXERS**
16 **THAT ARE COMPATIBLE WITH SONET TECHNOLOGY?**

17 A. Yes. Verizon MA expects that Charter and Verizon MA will use SONET
18 equipment in any fiber meet arrangement. It is customary for Verizon MA to use
19 SONET equipment in fiber meet arrangements with other carriers. In fact, the
20 draft fiber meet amendment provided by Verizon MA already contemplates the
21 use of SONET equipment. *See* Verizon MA Exhibit 3, Section 3.3 of Exhibit A
22 (“Terminating equipment shall comply with [SONET transmission requirements
23 as specified in Telcordia Technologies document GR-253 CORE (Tables 4-3
24 through 4-11)]”). Nonetheless, to address Charter’s concern, Verizon MA would

1 be willing to replace the term “Add/Drop Multiplexer” with the term “SONET-
2 capable Add/Drop Multiplexer.”

3 **Charter’s Issue 5(b): Use of Multiple Terminals in a Ring Configuration.**

4 **Q. DOES A CARRIER NEED MULTIPLE NODES IN A FIBER MEET**
5 **ARRANGEMENT IN ORDER TO EXCHANGE TRAFFIC?**

6 A. No. In its supplement to its arbitration petition, Charter proposes for the first time
7 that it be allowed to install multiple nodes on any fiber meet arrangement, but
8 does not explain why it needs to install more than one node on a fiber meet
9 arrangement. *See* Charter Supplement to the Arbitration Petition at 3-4. In each
10 fiber meet arrangement Verizon MA has constructed, each party has only one
11 node in the arrangement. In these arrangements each party is able to interconnect
12 and exchange traffic with only a single node on the fiber meet arrangement. I am
13 not aware of any network engineering reason why Charter would need multiple
14 nodes in a fiber meet arrangements in order to exchange traffic with Verizon MA.

15 **Q. ARE THERE OTHER REASONS WHY CHARTER MIGHT WANT TO**
16 **HAVE MULTIPLE NODES ON A FIBER MEET ARRANGEMENT?**

17 A. Yes. One conceivable use of multiple nodes could be to establish connectivity
18 between two Charter locations or nodes. Such a use of a fiber meet arrangement
19 would be solely for Charter’s benefit for connection between two components of
20 Charter’s network and not for interconnection with Verizon MA. Verizon MA
21 should not be required to incur the cost of fiber meet arrangements that are used
22 for connectivity between Charter’s network components.

Charter's Issue 5(c): Required Notice of Upgrade or Change to Fiber Meet Equipment.

Q. SHOULD VERIZON MA AND CHARTER PROVIDE EACH OTHER ONLY 7 DAYS NOTICE OF FIRMWARE UPGRADES WITHOUT A DESCRIPTION OF SUCH UPGRADES?

A. No. In its supplement to its arbitration, Charter has for the first time proposed that Charter provide only 7 days, rather than 14 days, advance notice to Verizon MA of firmware upgrades and that the notice indicate only the date of the upgrade without any description whatsoever of the firmware upgrade. *See* Charter Supplement to the Arbitration Petition at 4. Charter's proposal will create a substantial risk that a fiber meet arrangement will fail as a result of a firmware upgrade.

Q. PLEASE DESCRIBE HOW VERIZON MA HANDLES NOTICES OF FIRMWARE UPGRADES.

A. When Verizon MA receives notice of a firmware upgrade regarding a carrier's equipment on a fiber meet arrangement, Verizon MA typically sends that notice to the supplier of the equipment on Verizon MA's portion of that same fiber meet arrangement. Verizon MA's equipment likely would be different from Charter's equipment, and Verizon MA's supplier would need to analyze the firmware upgrade for compatibility (and any related) issues. If Verizon MA's supplier determines that Verizon MA's equipment would need a corresponding firmware upgrade in order to continue exchanging traffic with Charter, the supplier would make arrangements for that firmware upgrade. In Verizon MA's experience, it is unlikely that this process can be completed in 7 days.

1 **Q. HOW WOULD CHARTER'S PROPOSAL AFFECT THE ABILITY OF**
2 **THE PARTIES TO ANALYZE FIRMWARE UPGRADES AND RESPOND**
3 **ACCORDINGLY?**

4 A. Charter's proposal would not only shorten the notice interval for firmware
5 upgrades from 14 days to 7 days, but would also eliminate the description of the
6 firmware upgrade from that notice. Without a description of the firmware
7 upgrade, the analysis by Verizon MA's supplier would be more difficult, if not
8 impossible. Charter suggests that a description of the firmware upgrade could be
9 requested after receiving the notice. However, requesting such a description will
10 simply delay the analysis of the firmware upgrade, which Charter proposes occur
11 within a shorter period of time.

12 If a firmware upgrade is required for Verizon MA's equipment, Verizon
13 MA's firmware upgrade must be completed at the same time as Charter's
14 firmware upgrade in order to ensure that Charter and Verizon MA can continue to
15 exchange traffic. Seven days is likely not enough time for Verizon MA's
16 equipment supplier to obtain a description of Charter's firmware upgrade, analyze
17 that upgrade and, if necessary, make arrangements for and complete a firmware
18 upgrade to Verizon MA's equipment. Verizon MA and Charter should instead
19 provide 14 days notice of firmware upgrades and include a description of the
20 firmware upgrade.

Charter's Issue 5(d): Compensation for Construction and/or Implementation Expenses Generated by a Move or Change to the Fiber Meet Arrangement.

Q. PLEASE DESCRIBE CHARTER'S PROPOSAL FOR REQUESTED MOVES AND CHANGES TO FIBER MEET ARRANGEMENTS.

A. Where one party requests that the other party move or change a fiber meet arrangement, the requesting party is causing the other party to incur the cost of such move or change, and the requesting party should reimburse the other party for such costs. In its supplement to its arbitration petition, Charter has for the first time proposed an exception to this principle where the move or change is due to a government order. *See* Charter Supplement to the Arbitration Petition at 5. Under Charter's proposal, if Charter requests that Verizon MA move or change a fiber meet arrangement because a governmental entity revoked Charter's right-of-way, Charter would not have to reimburse Verizon MA for its costs of the move or change.

Q. WHAT IS THE PROBLEM WITH CHARTER'S PROPOSAL?

A. Charter's proposal would inappropriately shift costs away from the cost causer. Where a governmental order affects only one party, that party is the cost causer and should bear the other party's cost of the move or change. However, where a governmental order causes both parties to move or change the fiber meet arrangement, neither party is the cost causer and each party should bear its own costs.

Verizon MA's Issue 1: The Deployment of Fiber Meet Arrangements and Associated Trunking Within Fixed Time Intervals Should Be Subject to Reasonable Conditions, Such as Charter's Completion of Certain Milestones During the Construction of the Fiber Meet Arrangement.

Q. PLEASE DESCRIBE CHARTER'S PROPOSAL FOR FIXED INTERVALS TO COMPLETE A FIBER MEET ARRANGEMENT.

A. In Section 2.1.4 of Exhibit B, Charter proposes specific intervals for establishing fiber meet facilities and associated trunking. In particular, Charter proposes that "Fiber Meet facilities shall be established within 120 days from the initial implementation meeting which shall be held within 10 business days of the receipt by Verizon MA of [Charter]'s complete and accurate response to the Verizon MA Fiber Meet questionnaire." Charter Petition, Exhibit B, Section 2.1.4.

Q. PLEASE DESCRIBE THE PROBLEMS WITH CHARTER'S PROPOSAL.

A. Charter's proposal does not recognize the need for Charter to meet certain milestones in the construction of a fiber meet arrangement. As I explained above, there are a number of critical steps that Charter and Verizon MA must complete in order to construct a fiber meet arrangement. In many cases, one step must be completed before the next step can be started. For example, Verizon MA cannot activate and test its SONET equipment with Charter if Charter has not yet interconnected its fiber optic cable with Verizon MA's fiber optic cable at the FNID. If Charter does not interconnect its fiber optic cable with Verizon MA's cable until day 119, it will not be possible for Verizon MA to activate its SONET equipment on the fiber meet arrangement and complete the testing of that

1 equipment in a single day. Any deadline for the establishment of a fiber meet
2 arrangement must be contingent on Charter meeting its construction milestones on
3 time.

4 **Q. PLEASE DESCRIBE CHARTER’S PROPOSAL FOR FIXED INTERVALS**
5 **TO PROVISION FACILITIES AND TRUNKS OVER A FIBER MEET**
6 **ARRANGEMENT.**

7 A. Charter also proposes that “the provisioning for necessary facilities and associated
8 trunk groups ---- within [sic] 60 business days after the Mid-Span facilities are
9 established.” Charter Petition, Exhibit B, Section 2.1.4.

10 **Q. PLEASE DESCRIBE THE PROBLEMS WITH CHARTER’S PROPOSAL.**

11 A. Charter’s proposal does not set a reasonable limit on the number of facilities or
12 trunks that could be subject to the 60 business day interval. In fact, the next
13 sentence proposed by Charter suggests that there should be some limit, but
14 Charter did not propose such a limit: “Intervals for trunks *beyond the specified*
15 *limits* shall be negotiated by the Parties and agreed to in writing at the Initial
16 Implementation Meeting.” See Charter Petition, Exhibit B, Section 2.1.4
17 (*emphasis added*).

18 Any fixed interval for provisioning facilities or associated trunks should
19 be subject to some reasonable limit on the number of such facilities or trunks.
20 Verizon MA proposes that the provisioning for the DS3 facilities and the trunk
21 groups up to 10 new trunk groups or 1440 switched trunks should occur within 60
22 business days after the facilities are established. Verizon MA has these same
23 limitations in at least one other interconnection agreement in Massachusetts.
24 Requests for a greater number of facilities or trunks should be subject to
25 negotiated intervals.

Verizon MA's Issue 2: The Parties Should Be Able to Agree to Modify Fixed Time Intervals for Provisioning the Fiber Meet Arrangement and Associated Facilities and Trunks.

Q. PLEASE DESCRIBE CHARTER'S PROPOSAL FOR MODIFYING ITS PROPOSED FIXED INTERVALS

A. In Section 2.1.5 of Exhibit B, Charter proposes that "[w]here there are exceptional circumstances that prevent either Party from meeting their deadlines under this Section, either Party shall have the right to petition the Department for relief from the timeframes set forth above." Charter Petition, Exhibit B, Section 2.1.5.

Q. PLEASE DESCRIBE THE PROBLEMS WITH CHARTER'S PROPOSAL.

A. Charter's proposal would force either Charter or Verizon MA to seek relief from the Department even where their representatives agree that the interval should be modified. Where constructing a fiber meet arrangement, Verizon MA typically discusses with the other carrier the progress being made and the likely completion date. If, for example, Charter discovers a few days before a deadline that some of its fiber meet equipment is defective and cannot be repaired for at least a week, Verizon would allow additional time to repair the equipment. In this situation, there would be no reason to require Charter to petition the Department for relief from the deadline.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.